INFORMATION REPORT INFORMATION

CENTRAL INTELLIGENCE AGENCY

					S-E-C-R	-E-T		
COUNTRY	Po	land				REPORT		25X1
UBJECT	Po	lish Ar	nament I	ndustry	Lurrey	DATE DISTR.	19 FEB 1958	
nelu	din	g gra	revth	, chan	yea,	NO. PAGES	1	
du	jind	trate	ma	nd g	roduction	REFERENCES	RD	
ATE OF	loca	tim	maj	c sh	wing			
IFO.								25>
ACE &						: m		25X
		SOURCE	EVALUATI	ONS ARE D	DEFINITIVE API	PRAISAL OF CONTEN	T IC TENTATIVE	20/
1.					r	eport on the Po	lish armament	7
	ind	lustry g	iving b	ackground	d informatic	n on the growth	changes, and	
	add	unistra lition t	tlon of the repor	the indi	ustry and on	armament produ	ction. In	$\stackrel{\mathcal{O}}{\longrightarrow}$
	adn	inistra	tions:	I U COHOAL	Ins Informat	TOU OU THE TOTT	owing central	
	a.	Centre	1 Admin	ictmetic	a fan Machan	ical Equipment	Almas	The state of
	٠.							
	ъ.	Centra	l Admin	istration	n for Precis	ion Equipment	/ axl.	C -
	c.	Centra	l Admini	Lstrati on	a for Means	of Communication	ns p 15	
	d.	Centra	l Admini	Ls trati or	for the Te	lecommunication:	• •	. 1
	_						s madsery	
	e.	centra	I Admini	Lstration	i for the La	mp Industry/	X	
	f.	Centra	l Admini	L strati on	for Auxilia	ary and Optical	Equipment	4
				•				J
2.	A sk	etch ma	p showir	ng the lo	cation of Po	olish arms indus	stries accompanies t	the
	repo	rt.						
							(m)
								,
								25X
							21,4061	58 ²⁵ ^
							21 Aug St	ہے ج
							7,5	
***						(
								7
							(241	SO
							('//	ブ
					S-E-C-R-E-	,m		-
								25.7
TE X	ARMY	T .	NAVY	X AIR	X FBI	AEC	ORR Ev x	25X

25X1

25X1

Report on Poland's Armament Industry

Contents:

- 1. Growth
- 2. Changes
- 3. Administration
- 4. Armament Production

Appendix I. Central Administration for Mechanical Equipment

- " II. " " Precision Equipment

 " III. " " Means of Communications 1"

 " IV. " " the Telecommunication Industry

 " V. " " Lamp Industry

 " VI. " " Auxiliary and Optical Equipment
 - VII. Map showing location of Polish arms industries.



Report on Poland's Arms Industry

1	he	present	report	has	been	composed	primarily	on

25X1

the Polish arms industry. In many instances, the information has been contradictory or vague. By and large, the overall picture given should be correct. Specific statements relative to the scale of production must be taken with reservations.

Growth

Prior to the outbreak of the Korean War in June of 1950, the Satellite States had no armament industry. The war materiel required was obtained from the Soviet Union in exchange for nonmilitary goods.

During the Korean War, the Satellites were instructed to build up an armament industry of their own. During 1951 - 1953, war materials plants were built in Poland, preparations were made for the delivery of raw materials, and plans were worked out.

Designers, technicians, and supervisors were furnished by the Soviet Union. Poland obtained machines and other equipment from the Soviet Union, primarily, partly on credit, and partly for cash payment. Machinery was imported from East Germany and Czechoslovakia also. Some machine tools were purchased Poland obtained a sizable loan for armaments from the Soviet Union in 1954.

25X1

Until the autumn of 1956, the arms industry enjoyed priority over other industries in regard to investment appropriations, deliveries of raw materials, qualified technicians and workers, etc. Thus, for example, specialists were transferred to the arms industry from other industries, without consideration for the possibilities such industries had of finding replacements. Wages in the arms industry were above the general wage level. Yet the wages in this branch were raised again at the end of 1955. To satisfy



investment requirements in this industry, appropriations for other branches of industry had to be cut down. This did not happen in accordance with any plan, but was the result of circumstances and need.

As cover for their operations, several arms factories were also assigned the task of producing nonmilitary goods, although to a limited extend.

The production capacity of the armament industry did not become impressive until late in 1953 or early in 1954. This period coincides with Malenkov's so-called consumer-friendly deal for the East Bloc, as a result of which Poland revised the production goals of the 6-year plan, ostensibly to increase the production of consumer goods. It is fair to assume that most of the production capacity liberated was transferred to the armament industry.

Investments in the armament industry reached their peak toward the end of 1955. The largest and most important investments went into factories producing all kinds of firearms and ammunition, jet-propelled planes, tanks, and radar, in that order. On the whole, the expansion was completed by New Year's 1956.

The Polish arms industry constitutes a part of the arms industry of the Communist Bloc, and complements that of the USSR. In round figures, three fourth of its production, in certain cases more, went to the USSR, at least up to the fall of 1956. For these deliveries, no payment was received, with certain exceptions, on the justification that the USSR strengthened the security of Poland. However, in exchange for the arms deliveries Poland received some raw materials required by the arms industry. As a whole, this industry has doubtless been a great burden to the Polish economy. The heavy emphasis on arms production has also been one of the primary causes of the very troublesome inflation in Poland.

2. Changes

Prior to the return of Gomulka (October 1956), no signs were apparent of a reduction of the arms production. Immediately afterward, however, instructions were given the arms industry for a five percent reduction of production.

During the political tension which arose during the fall between Poland and the USSR, Soviet managers, instructors, and supervisors were being discharged from the arms industry. At the same time, economic strife developed between Poland on the one hand and the USSR and the other satellites on the other. At its culmination, this strife resembled a trade war, which led to a reduction of raw materials deliveries from the other Communist Bloc countries to Poland, Soviet iron ore among them.

Soviet concern over a possible Polish break [away from the Communist Bloc] was considerable at this time. As early as in November (Gomulka's visit to Moscow), the USSR is reported to have demanded a radical reduction, and in certain cases (jet aircraft, tanks, and certain types of artillery) a stop, of war [Polish]/materials production.

Around New Year's 1957, the arms industry to a considerable extent had ceased production. An effort toward conversion to civilian production was noticable.

25X1

The increase in steel production in 1957 will amount to only seven percent (13 percent in 1956), which can be traced back to the diminished imports of raw materials and reduction of arms production.

	a certain				
amount of renewed activity has been evident.					
the Soviets	demanded resumption of	25 X 1			
production by the [Polish] arms industry.					
a considerable number of the dismissed	Soviet advisers and supervisors				
have returned to their former positions. It	had not been the Soviet inten-				

a considerable number of the dismissed Soviet advisers and supervisors have returned to their former positions. It had not been the Soviet intention to reduce the production compared to what it had been previously. In view of Poland's strained economic position, this was considered unfortunate even by Communist circles in Poland.

3. Administration

All arms production has been centralized under the ministry for the machine industry, (Ministerstwo Przemyslu Maszynowego). Both the arms



industry and the civilian machinery industry are subordinate to this ministry.

In 1955 and up to May 1956, there was a separate ministry for the arms industry, the ministry for the motor industry (Ministerstwo Przemyslu Motoryzacyjnego).

- 1. The Ministry is divided in five departments (Department).
- a. The Military Department (Department Wojskowy) handles planning
 of production of various weapons types and supervises the arms factories.

 headed by General LEWANDOWSKI. In this depart-

ment, in which about 60 army officers work, there are card files on all persons employed in the arms industry.

- b. The Planning and Production Department (Department Planowania i Produkcji), headed by a man, ZELCZAK, of the Security Police, receives daily production reports from the central managements (Centralny Zarzad) of the various branches of the machinery industry. In this department, which keeps the most detailed statistics on Polish arms production, books are kept on the production of about 3,500 items. The department has about 60 employees, all of them civilians.
- c. The Technical Department (Departament Techniczny) works on problems of design. was headed by Stefan JARZABEK.

25X1

25X1

25X1

- d. The Investment Department (Departament Inwestycyjni) was headed by CZERKOWSKI.
- e. The Finance and Administration Department (Department Zarzadu

 Administracji Gospodarczej) was headed by Marian ECKERT

- 2. Seventeen central administrations for various branches of industry are subordinate to the ministry. Of these 17, the following six deal with arms production.
- a. The Central Administration for Mechanical Equipment (Centralny Zarzad Mechanicznych) is responsible for the production of various kinds of artillery and tanks.

b. The Central Administration for Precision Equipment (Centralny
Zarzad Wyrobow Precyzynych) is responsible for the production of hand wea-
pons, ammunition, and explosives. the pro-
duction of artillery shell cases is the responsibility of the administration
dealt with under point a.
c. The Central Administration for Means of Communications (Centralny
Zarzad Sprzetu Komunikacyjnego) is responsible for the production of military
aircraft.
d. The Central Administration for the Telecommunications Industry
(Centralny Zarzad Przemyslu Teletechnicznego) is responsible for the produc-
tion of radio transmitters and receivers, radar equipment, telephones, etc.
e. The Central Administration for the Lamp Industry (Centralny
Zarzad Przemyslu Lampowego) is concerned with the production of poison gases.
f. The Central Administration for Auxiliary Apparatus and Optics
(Centralny Zarzad Pomocniczych i Optycznych) supervises the production of
optical glass for military purposes, certain glass parts for aircraft, etc.
As a cover for their real production, almost every arms factory subor-
dinate to the above mentioned Central Administrations produces an insignifi-
cant amount of civilian goods.
The distribution of arms enterprises among the various Central Adminis-
trations made in this report met with certain difficulties. This applies
particularly to the Central Administrations dealt with under points a. and
b., In addition, it 25X
seems that the names of the arms production enterprises are being changed,
while their production remains unaltered. Further, it is doubtful whether
the enterprises are subordinate to one Central Administration only. If their
production is very much varied, it may be that they are subordinate to more
than one administration.
Not all of the enterprises which produce war materiel are included in
the appendices.

there are also a number of enterprises that	25 X 1
are not subordinate to the Central Administrations of the arms industry, but	
nevertheless produce considerable quantities of products and parts for mili-	
tary purposes.	
4. Arms Production	
The production figures for the arms industry given in the following may	
seem high, but it should be taken into consideration that the greater part	
of Polish industry was engaged in arms pro-	25 X 1
duction. The arms industry enjoyed a preferred position in the economy.	
It should also be pointed out that Polish industry has a considerable produc-	
tion capacity.	
	25 X 1
	20/(1

Further, the very small expenditure for research and design must be taken into consideration. Hitherto, drawings and 25X1 design information has been obtained from the USSR. This is confirmed by the fact, among other things, that the war material produced in Poland is mainly made up of Soviet models.

It is also possible that the Polish arms industry obtains raw materials and finished and semi-finished products from other Communist Bloc countries at very advantageous prices.

In view of these circumstances the possibility that the relatively high production figures lie within the bounds of the possible should not be excluded.

The following branches of the arms industry were built up from the bottom:

Production of the Soviet tank T-34/85 (discontinued in 1956 and the T-52 substituted).

Production of the Soviet MIG aircraft (two different types, the LIM 2, or MIG 15; and the LIM 5, or MIG 17).

Production of various kinds of artillery, automatic cannon for jet fighter aircraft, and ammunition.

Production of army pistols.

Production of radar equipment.

the following totals for ammunition production are given:

25X1

- a. for anti-tank guns 180,000 rounds per month
- b. for anti-aircraft guns 230,000 " " "
- c. for aircraft guns 300,000 " "

Poland is permitted to retain about 25 percent of the two first categories, and about 10 percent of the aircraft gun ammunition.

The production of pistols amounts to about 21,000 per month.

The production of fighter aircraft is said to have varied from 45 to 60 per month up to the end of 1956.

The Central Administration for Mechanical Equipment (Centralny Zarzad Urzadzen Mechanicznych) is responsible for the production of tanks, artillery of all kinds, and probably also aircraft armament (LIM 2 and LIM 5). Everything has been produced to Soviet license. About 75 percent of the production, at times more, has been going to the USSR.

In addition to the three steel mills of Stalowa Wola, Labedy, and Malapanew, the following more important plants were subordinate to this administration

25X1

- a. Wytwornia Urzadzen Mechanycznych Wroclaw
- Zielona Gora
- Rzeszow
- £\$ Mielec d.
- Myslakowice
- Stara Wies ſ.
- Dobre Miasto g.
- Ustka
- Katowice
- Tarnow j.
- Poreba

The largest depot for tanks and spare parts for tanks seems to be lono Poles were permitted access cated in Niewiadow. to this depot.

25X1

Large stores of war materiel are also found in Wroclaw, and in Warsaw-Mokotow near the Okecie airfield, at the end of Ulica Raciawicka near the Warsaw II radio transmitter.

a. Raw Material Supply of the Steel Mills in Arms Production.

The three most important steel mills producing for the arms industry are Stalowa Wola, Labedy, and Malapanew. The greater part of the steel



requirements of these mills is covered by the "civilian" steel mills. The	
production of the steel mills producing for the arms industry consists of	
special steels. all of this production went to the	25 X 1
arms industry, and these plants covered one half of the requirements of such	
steels The balance of the required special steels were obtained	25 X 1
mainly from the USSR, East Germany, and Czechoslovakia.	
Obtaining iron ore is one of the greatest problems of the Polish	
steel industry. The country depends for three quarters of its iron ore upon	
imports, 70 percent of which are obtained from the USSR. Imports of four	
million tons of iron ore from the USSR has been planned The whole	25 X 1
iron and steel industry, and consequently also the arms industry, is to a	
considerable degree dependent upon the USSR. Poland's opportunities to ob-	
tain iron ore from other countries are severely limited.	
As concerns also nickel, chromium, molybdenum, wolfram, copper, and	
other metals of importance to the arms industry, Poland is dependent on	
other countries, particularly the USSR.	
b. The expansion of Stalowa Wola, located about five kilometers south	
south-east of Rozwadow (Latitude 50° 35' North; Longitude 22° 2' East), was	
completed in February 1955. The mill then had two blast furnaces, at least	
three open hearth furnaces with a capacity of 100 tons per day, a rolling	
mill of considerable size, a large foundry section having five buildings,	
a forge, and at least six "production shops" for the manufacture, among	
other things, of tank components. At the other end of the town are found	
underground work shops.	
The plant employs about 3,000 workers	
managed by a Russian. The	25X1
plant has had no Soviet advisers.	
Up to 1954, Stalowa Wola was a center for the production of tank com-	
ponents, assembly of tanks of type T-34/85, and production of antiaircraft	
guns. 100 and 120 millimeter artillery	25 X 1



pieces, m/28 automatic rifles, and m/33 pistols were also produced). In 1954, the labor force was cut down by 20 percent. The tank assembly operations were moved to the Labedy steel mill. Since that time, Stalowa Wola has not produced tanks, but only certain tank parts.

Most of the antiaircraft gun assembly operations were also moved to Labedy. Previously to that, about 150 had been produced per month. Poland was permitted to keep 20 of these, the rest was sent to the USSR. At the same time, about 250,000 per month of shell cases for these guns were made, of which Poland was permitted to keep about 25 percent. The transfer to Labedy of the antiaircraft gun assembly operations has taken place gradually. To a certain extent this operation was still going forward in Stalowa Wola

abedy of the antiaircraft gun assembly operations has taken place gradually.	
o a certain extent this operation was still going forward in Stalowa Wola	
as was the production of ammunition, which had 2	5 X 1
robably not been cut down.	
c. The Labedy Steel Works, located in Labedy, about five kilometers	
rest of Gliwice (Latitude 50° 18' North; Longitude 18° 40' East), is the	
argest and most modern enterprise of the Polish arms industry. Expansion	
and modernization of the plant began as early as in 1947, but was not pur-	
osefully carried forward until 1952. the plant had	5 X 1
several" blast furnaces, four electric furnaces, an ingot rolling mill, a	
arge rolling mill, seven to ten foundry shops, four large workshops, and	
numerous smaller workshops.	
the plant employed about 11,000 workers, who worked	
n shifts.	
	5X1
the main production of the Labedy plant consisted	
f tank components and assembled tanks of type T-34/85. The production	

amounted to 30 to 50 tanks per month, of which Poland was permitted to keep three or four, the rest being turned over to the USSR. Some of these tanks were assigned to Soviet bases in Poland.



the tank production was discontinued.	
however, it was started up again, of the type T-54.	5 X 1
casting had been completed of some tank turrets. It was estimated	
that four tanks would be completed The number produced of the new	
tank has been estimated at more than 100	
In addition to tanks, certain parts for anti-tank guns are also made	
in Labedy. Such guns are also assembled about 150 per month	
(Poland retained about one fourth of them). In addition, about	5 X 1
70 anti-aircraft guns were produced per month, of which Poland was permitted	
to keep four or five.	
A rather small section of the plant has been producing civilian goods,	
among them parts for railroad cars. this production	5X1
was insignificant. When the tank production was cut down Labedy	
is supposed to have begun producing excavators, tractors, and washing ma-	
chines.	
J	5 X 1
d. Malapanew (Latitude 50° 40' North; Longitude 18° 12' East), at Ozimek,	
ten kilometers] east of Opole.	5 X 1
this plant had two blast furnaces, nine open hearth	5X1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry.	5X1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-	
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The	5X1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The 25 civilian production consisted of castings for railroad freight car plants.	
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The 25 civilian production consisted of castings for railroad freight car plants.	
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti- aircraft guns, and aircraft guns. The Civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts.	5 X 1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In Tarnow (Latitude 50° 3' North; Longitude 21° 0' East) there is	5 X 1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In Tarnow (Latitude 50° 3' North; Longitude 21° 0' East) there is a mechanical works which is probably subordinate to the Central Administra-	5 X 1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In Tarnow (Latitude 50° 3' North; Longitude 21° 0' East) there is a mechanical works which is probably subordinate to the Central Administration for Mechanical Equipment. It began to take its present form in 1949	5 X 1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The 2: civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In <u>Tarnow</u> (Latitude 50° 3' North; Longitude 21° 0' East) there is a mechanical works which is probably subordinate to the Central Administration for Mechanical Equipment. It began to take its present form in 1949 with the conversion of a repair shop for locomotives. In 1954, new equip-	5 X 1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In Tarnow (Latitude 50° 3' North; Longitude 21° 0' East) there is a mechanical works which is probably subordinate to the Central Administration for Mechanical Equipment. It began to take its present form in 1949 with the conversion of a repair shop for locomotives. In 1954, new equipment was obtained from the USSR. The production is at least 50	5 X 1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In Tarnow (Latitude 50° 3' North; Longitude 21° 0' East) there is a mechanical works which is probably subordinate to the Central Administration for Mechanical Equipment. It began to take its present form in 1949 with the conversion of a repair shop for locomotives. In 1954, new equipment was obtained from the USSR. The production is at least 50 anti-aircraft guns per month.	5X1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In Tarnow (Latitude 50° 3' North; Longitude 21° 0' East) there is a mechanical works which is probably subordinate to the Central Administration for Mechanical Equipment. It began to take its present form in 1949 with the conversion of a repair shop for locomotives. In 1954, new equipment was obtained from the USSR. The production is at least 50 anti-aircraft guns per month. a reduction of the production 25%	5 X 1
this plant had two blast furnaces, nine open hearth furnaces, a rolling mill, and a large foundry. The main production consisted of ammunition for anti-tank guns, anti-aircraft guns, and aircraft guns. The civilian production consisted of castings for railroad freight car plants. the manager was a Russian. The plant had about 5,000 workers, working in shifts. e. In Tarnow (Latitude 50° 3' North; Longitude 21° 0' East) there is a mechanical works which is probably subordinate to the Central Administration for Mechanical Equipment. It began to take its present form in 1949 with the conversion of a repair shop for locomotives. In 1954, new equipment was obtained from the USSR. The production is at least 50 anti-aircraft guns per month.	5X1

APPENDIX II

The Central Administration for Precision Equipment (Centralny Zarzad Wyborow Precyzyjnych) is responsible for the production of pistols, rifles, ammunition and explosives.

All enterprises subordinate to this administration are called "The Metal Works" (Zaklady Metalowe) plus the name of its location.

- a. Zaklady Metalowe Skarzysko-Kamienna
- b. " Tarnow

These two are the most important plants. They are concerned primarily with assembly operations. A further 27 plants exist, of which the following are known.

- c. Zaklady Metalowe Lowics, parts for army pistols.
- d. " " Krakow, " " " "
- e. " <u>Poznan</u>, tied in with Zispo, now Ciegelski, (bullets and cartridge cases)
- f. " Wroclaw, tank components.
- g. " Wroclaw, hygrometer plant.
- h. " Walbrzych
- i. " " Rzeszow
- j. " Warszawa (?), rifles.
- k. " " Radom (?),
- 1. " " Debe

Depots are found in Skarzysko-Kamienna, Tarnow, Leczyca, Warsaw-Grochow, and Bobrek.

a. The metal works <u>Skarzysko-Kamienna</u>, location Latitude 51° 8' North; Longitude 20° 55' East (midway between Radom and Kielce), was in existence before the war, but has undergone complete modernization.

The plant has eight production shops in addition to an office building	g.
Of the shops one is a tool shop, another is used for thermic processing, o	ne
for galvanizing, one for parts production, and the rest are workshops.	

the manager was a Russian of Polish extraction.

He was also the head of the Central Administration for Precision Equipment.

He had two Soviet advisers.

The labor force consists of about 6,000 men. Three shifts are worked in most of the divisions.

The plant is mainly occupied in assembling army pistols and producing ammunition for pistols. The production of pistols amounts to about 21,000 permonth. About 75 percent of this production is turned over to the USSR without compensation. Part of the Soviet share has gone to Soviet bases in Poland.

Formerly, the plant produced steel springs for civilian consumption.

This production was discontinued in 1954 on the recommendation of the Soviet advisers.

The storage rooms are underground, and are located about one kilometer south of the plant within an area of about six square kilometers. The plant has the largest stores in Poland of pistols, pistol ammunition, and certain chemicals used in the arms industry.

Some kilometers from this plant is located the so-called Chemical Institute, one of the most important enterprises of Poland, which furnishes the arms industry with chemicals. This plant is partly underground. It has "several" production halls.

b. The Tarnow Metal Works (location: Latitude 50° 3' North; Longitude 21° 0' East). Construction was begun in 1947 and finished in 1954. The plant has large underground storage facilities within an area of three to four square kilometers.

A Russian managed the plant He had no Soviet advisers. The working force amounts to about 2,000 men. Among the workers are many repatriates from the USSR.

25X1



The greater part of Polish production of artillery ammunition and mines (the so-called smugacze) originates in this plant. The work of the plant consists mainly of assembly of parts coming from some of the other plants subordinate to the same administration.

In addition to ammunition, the plant also produces instruments (wskazniki) for tanks.

c. In the vicinity of Krasnik, about 40 kilometers south south-west of Lublin, there is an arms industry plant located within a fenced area 2 x 4 kilometers in extent. A residential area for about 10,000 persons is connected with the plant.

The plant receives considerable quantities of quality stell from the	
Baildon stell mill in Katowice. The production consists of light infantry	
weapons and artillery and antiaircraft ammunition. There is a special sec-	
tion for production of ball bearings. Of the eight production halls which	
were in operation two produced ball bearings, two	25X1
assembled artillery projectiles and ammunition for hand weapons, one produced	
artillery shells, one produced rifles, one machined blanks for artillery	
projectiles, and one machined semi-finished parts for rifles and other hand	
weapons. two more production halls were under con-	25X1
struction.	

APPENDIX III

The Central Administration for Means of Communications (Centralny Zarzad Sprzetu Komunikacyjnego) is responsible for the production of military aircraft. Plants subordinate to this administration are as a rule called "WSK-Factories" -- Means of Communications factories.

Polish aircraft production is strictly divided into civilian and military branches. The civilian branch produces, among others, the "Junak 8," mostly in Warsaw-Okecie and Warsaw-Grochow.

In 1953, the Soviet Union ordered Poland to begin building jet aircraft. A prototype of the jet LIM 2 (Mig 15) was furnished by the Soviets, and the following year the Poles began serial production of this plane. Production plans for periods of three months at a time were prepared by the Soviets and sent to Poland. This production

sent to Poland. This production

was discontinued in favor of the LIM 5 (Mig 17).

the USSR in 1955 assigned to Poland the task of

delivering 500 Mig 17 aircraft to China via the USSR. This order was

completed before the return of Gomulka.

The production of the LIM 2 amounted to about 45 planes per month, but rose at times to 60 planes per month. Of these, the Poles were permitted to keep two or three, while the rest was turned over to the USSR. Most of these planes were stationed at the Soviet bases in Poland. While they paid for no other weapons, the Soviets did pay for the aircraft they received. The price was two million zloties per plane. According to Polish estimates, the cost [of production] was considerably more than 2.5 million zloties per plane. All planes had to be approved of by a Soviet general attached to the Polish General Staff.

The planned production of the LIM 5 was 45 planes, which number was produced. Gomulka does not seem to have intervened to reduce the aircraft production. The production apparently went forward according to plan until the USSR requested that the production of jet aircraft be discontinued. Thereupon the production gradually decreased, and the Soviet advisers in the plants were dismissed.

The situation in the	military aircraft industry	25X1
has been described as foll	.ows: About 50 percent of the labor force had b	een
furloughed, the unskilled	and politically unreliable workers having been	let
go first. In the assembly	plant in Mielec the last of the LIM 5 series to	vere
being completed. In its p	place, a new series, a jet plane called the "GC"	1
and "DD", was being produc	ced. The production amounted to four or five p	lanes
per week. At the same tim	ne, preparations, nearing completion, were being	3
made for the production of	a jet bomber and a fighter of Polish design.	
A Polish press report	that the Mielec	25X1
plant was to take over the	e production of the Polish training plane, the	rs -8
"Bies". Trybuna Ludu repo	orted that this plant had begun the p	pro- 25X1
duction of small automobil	les (the Mikrus MR 300).	
A further sign of adj	justment in the aircraft industry is the fact th	nat
the plant in Swidnik, near	Lublin, which formerly produced airframes has	
greatly expanded its produ	action of helicopters.	
One of the bottleneck	s in the Polish aircraft industry is the shorte	ıge
of qualified engineers and	d designers. The proportion of engineers to wo	rkers
is 1:30, while in Czechosl	Lovakia it is 1:5,	
		25 X 1
A further difficulty	faced by the Polish aircraft industry is its de) -
pendence upon imports of i	nstruments, electrical equipment, and aluminum	,
The following plants,	, all called "Means of Communications Factories"	•
plus the place name (Wytwo	ornia Sprzetu Komunikacyjnego - WSK) are known:	
a. WSK Mielec	(Aircraft assembly)	
b. WSK Rzeszow	(Assembly of motors)	
c. WSK Swidnik	(Airframe and helicopter production)	
d. WSK Wroclaw-Psie	Pole (Various parts and motor components)	
e. WSK Kalisz	(Parts and engines for the Junak and	Por
	helicopters)	
f. WSK Krakow	(Parts and cases for radio apparatus)	



g	•	WSK Pelcznica	(Wheels)
h	١.	WSK Debica	(Screws and various small parts)
1	•	WSK Warszawa	(Navigation instruments and parts for the
			Junak)
j	•	WSK Okecie in Warsaw	(Production of the Junak training plane;
			main depot for parts imported from the
			USSR and Czechoslovakia)
k		WSK Gorzyce	(Various non-ferrous castings)

25X1

The following three plants have separate WSK sections only:

- a) The plant in Ustron which produces and grinds certain parts for the aircraft industry.
- b) The Aeronautical Institute (Instytut Aeronautyczny) in Gliwice conducts tests of certain parts.
- c) The automobile factory in Starachowice produces parts to be finished in WSK enterprises.

Among the enterprises which do not have WSK in their names and are thus not subordinate to the Central Administration for Means of Communication but nevertheless produce materials for the aircraft industry may be mentioned the alloy-steel mills Baidon in Karowice, Batory in Chorzow, and Swierczewski in Zawadzkie. The rubber goods factory Semperit in Krakow (Zaklady Przemyslu Gumowego) makes rubber mouldings and other rubber products for aircraft, but not tires, which are made in Zaklady Przemyslu Gumowego in Wolbrom (possible also in Debica), and are also imported from the USSR. Krakowskie Zaklady Metalowe in Krakow-Grzegorski and the steel mill Stalowa Wola produce certain metal parts. Plant A 5 in Warsaw (Zaklady Urzadsen i Aparatury Grzejnej) produces heating installations for aircraft. Plant A 8 in Bielsko-Biala makes small generators for aircraft.

a. <u>WSK Mielec</u>, in Mielec in southern Poland (Latitude 50° 30' East) was rebuilt after the war on the site of a ruined older factory, suffered severe damage in a fire in 1952. At the present time it has 12 production halls. All storage rooms are underground.

The plant manager is a Pole, not a Russian as is usually the case.
he was assisted by two Soviet advisers. Later the ad-
visers may have been dismissed, but have returned
the plant employed about 5,000 workers. Two shifts
are worked. The wages of the employees are considerably higher than those
of other Polish workers, and their standard of living is on a level with
that of workers in
The plant has its own design section. A large airfield for testing of
aircraft is located about two kilometers from the plant.
the jet plane LIM 2 was produced. The average pro-
duction was 45 planes per month. At times it reached 60 planes per month.
In 1955, preparations were begun for a change-over to production of the LIM 5,
and the production of this plane was begun. About 45 planes
were produced. the production seems to have prac-
tically ceased. It was resumed again however, but at
a smaller volume than formerly. Concerning changes in the production see above.

The prototype plane was furnished by the USSR. During the first production period the percentage of planes rejected was very high.

b. <u>WSK Rzeszow</u>, in Rzeszow (Latitude 50° 4' North; Longitude 21° 59' East), where jet engines are assembled, is the largest plant of the Polish warplane industry. It is located two or three kilometers south of the city proper. It has 10 production halls (of which the four largest were built during the period from 1950 to 1954), and underground storage rooms. The plant area comprises about six square kilometers.



The plant manager is a Pole. he had two	Soviet advisers, later
dismissed, but returned	the 25X1
plant employed about 8,000 workers.	
The production consists practically entirely of j	jet engines (LIS 2 and
LIS 5), which are delivered to the plant in Mielec. M	Monthly production is
estimated at 45 to 60 units.	the plant might, at 25X1
full capacity, be able to produce 90 to 100 engines pe	er month. A small num-
ber (about 20 units per month) of racing motorcycles s	are also produced.
During	there 25X1
was no production of jet engines. Thereupon production	on was resumed, but
on a smaller scale than formerly.	
c. WSK Swidnik, 9 kilometers east of Lublin (Lat	titude 51° 35' East),
produced airframes	
r e	The plant's production
of helicopters, however, has increased considerably	25X1
helicopters were assembled from compor	ments obtained from the
USSR, but at the present time all components, except e	engines, are apparently
made in Poland. Plans call for the production of the	engines as well in
Poland	25X1
Tripling of the helicopter production is planned	so that it
will amount to "several hundred units". The plant's m	maximum capacity is
said to be 50 to 60 helicopters per month, a figure wh	nich seems very high.
For the present, the MI-1 (the Soviet SM-1), a three-s	seater helicopter, is
being produced on Soviet license. A four-seater helic	copter of Polish de-
sign, the BZ-4 "ZUK", is under discussion, but may not	t yet be beyond the
experimental stage. Poland exhibited helicopters at t	the Leipzig and Paris
trade fairs.	
	25X1



d. WSK Wroclaw-Psie Pole, located immediately north of Wroclaw (Lati-	
tude 51° 6' North; Longitude 17° 3' East), was built after the war, and has	
15 production halls within an area of about six square kilometers. The	
storage rooms are underground.	
the plant manager was a Russian assisted by two	25X1
Soviet advisers. The working force was about 4,000 men.	
The production consisted of parts for jet engines, which were shipped	
to the Rzeszow plant, and motorcycle engines.	
e. WSK Kalisz, (Latitude 51° 45' North; Longitude 18° 9' East), was	
from its beginning intended for the production of parts for automobiles.	
however, it produced parts for jet engines exclu-	25 X 1
sively. The plant, which has underground storage facilities, was completed	
in 1952. It has three production halls, and employs about 1,000 workers.	
the plant manager was a Pole. There are no Soviet advisers at the	25 X 1
plant.	
f. WSK Krakow, is located in the city of Krakow (Latitude 50° 3' North;	
Longitude 19° 58' East). It was built in 1953. It was managed by	25X1
a Pole, who had no Soviet advisers. The working force was about 800. The	
production consists entirely of parts for jet aircraft.	

APPENDIX IV

The Central Administration for the Telecommunications Industry (Centralny	
Zarzad Przemyslu Tele-Technicznego - CZPT) supervises 16 enterprises, which	
are designated by the Letter T plus a number. Of these 16, eleven are wholly	
or in part engaged in production for military purposes.	
about 50 percent of the military production went	25 X 1
to the USSR. This production consisted mostly of radio transmitters and re-	
ceivers for aircraft, tanks, and ships, and for army uses. Telephones for	
the army were also made. Formerly, broadcast jamming equipment was also made.	
The radios transmitters and receivers carry the designations BZ 1 to	
BZ 5, AS 2 and AS 3. The monthly production about	25 X 1
300 units for the BZ types, and about 700 units of the AS types.	
a. The $\underline{\text{T-l}}$, in Warsaw-Grochow is wholly engaged in military production.	
The plant, which employs close to 3,000 workers, was built in 1954-55. Radar	
equipment, among other things, is made. The first radar installation, of	
Soviet design, was delivered to the defense forces	
The plan called for production of 10 installations, but because of pro-	25 X 1
duction difficulties, this figure may not have been reached.	
b. The $\underline{\text{T-2, in Warsaw-Praga}}$ produces telephone switchboards for mili-	
tary purposes, among others. About 2,000 workers are employed in the plant.	
c. The $\underline{\text{T-3, in Warsaw-Wola}}$ was built in 1948/49. It has about 3,500	
employees. In 1955, about 20 percent of its production consisted of radio	
apparatus for infantry, of Soviet design. however,	25 X 1
the production was converted to radio apparatus and gyroscopes for aircraft,	
and pilot's throat microphones. The production plan included, among	25 X 1
other things, 120,000 radio receivers, of which 10,000 were of a 2.5 kilogram	
portable Austrian model.	
The military division of T-3 employs about 200 workers, and is primarily	

engaged in assembly of component parts made by other divisions and enterprises.



d. The T-4, in Lodz employs about 500 workers and produces telephone

instruments for civilian and military purposes.	
e. The T-6 in Dzierzoniow, 15 kilometers southeast of Kraszowice	
(Latitude 50° 50' North; Longitude 16° 30' East), was built in 1949-1953,	
and has about 3,000 workers. the T-6 is the	25 X 1
largest enterprise of the [Polish] telecommunications industry. The mili-	
tary production of the plant consists of radio transmitters and radio equip-	
ment for artillery fire control. the monthly production of such	
fire control apparatus amounted to 15,000 units. The plan called for	25X1
a gradual increase in this production, possibly to double the figure.	
However, difficulties were encountered in producing the wooden cases for	
the apparatus, and in addition, the poor management of the plant may have	
affected the production results, which may not have reached the goal	
one tenth of the personnel of the T-6 was engaged in the mili-	25 X 1
tary production. The corresponding figure was about one	
fourth.	
f. T-7, in Krakow (Latitude 50° 3' North; Longitude 19° 58' East),	
which has a working force of 700 to 1,000, produces radio parts, primarily	
condensers. The plant has no separate military division, but a special sec-	
tion checks deliveries of the best products, which go to the defense forces.	
g. The T-9 in Radom (Latitude 51° 21' North; Longitude 21° 13' East)	
produces telephones for both military and civilian use.	
h. The T-10 in Wrzesnia (Latitude 52° 20' North; Longitude 17° 40'	
East) employs about 1,200 workers, of whom one third are engaged in mili-	
tary production , which consisted of,	
among other things, small motors for radar installations. The motors were	25 X 1
of Soviet design, and made under the supervision of a Soviet expert who had	
come to the factory in 1954. The production also included 1.400 to 1.600	

mine detectors per year, intended for infantry and engineer troops. The T-10 has not been successful in fulfilling annual plans, and this has caused dislocations in the production of the T-3 and the T-6, among other plants.

- i. The <u>T-ll in Warsaw-Okecie</u>, is apparently producing certain tank parts, but its primary production consists of lamps, lamp glass, and signal equipment and other electrical equipment for automobiles and motorcycles. The plant employs 1,300 workers.
- j. The T-12 in Warsaw-Zeran has only 300 employees, and produces, among other things, radio transmitters for naval vessels and fishing boats.
- k. The T-14 in Warsaw-Ochota was established in 1954. The enterprise was originally planned for production on a large scale of measuring instruments for other plants in the telecommunications industry, including those producing radar equipment. The development of the T-14, which employed 300 workers, has not come up to expectations. The production of the plant is now limited to low capacity auto-transformers, radio resistors, two types of signal generators, and oscilloscopes of Soviet type.

APPENDIX V

The Central Administration	for the Lamp Industry (Centralny Zarzad	
Przemyslu Lampowego) was establi	ished in 1955 and is responsible for the	
production of poison gases. The	e lamp industry's civilian production con-	
sists of incandescent lamps for	automobiles and miners' lamps. As late as	
this branch of	f industry was in the process of great ex-	25 X 1
pansion. As concerns its produc	ction for military purposes, it worked for	
the USSR exclusively, but it had	no Soviet managers or advisers.	
The main plant is located i	n Warsaw, where in 1955 the so-called lamp	
industry was started under the r	name of the Electronics Institute (Instytut	
Elektroniki).	when this plant was still in the proc-	25 X 1
ess of development, it had about	: 400 workers. The plant has underground	
storage facilities.		
Smaller plants are	located in, among other places,	
Wroclaw, Krakow, and Katowice.	however, their pro-	25 X 1
duction was relatively insignifi	cant.	

The central depots for the "lamp industry" are located in the Ulica Rakowiecka, near the KBW headquarters, in Warsaw.



_	_		2
٠,	4	Y	1
_	.,	^	

APPENDIX VI

The Central Administration for Auxiliary and Optical Equipment

(Centralny Zarzad Aparatur Pomocniczych i Optycznych) coordinates the production of the 15 factories of the optical industry. About three fourths of the military production of this industry goes to the USSR. All of the optical firms, however, produce also goods for the civilian market.

The most important optical plant is located in Warsaw-Wola, and employs about 1,000 workers. Other such plants are known to be located in Warsaw-Grochow (300 workers), Tarnowskie Gory, Wroclaw, and Krakow.

APPENDIX VII

Map showing location of the plants of the Polish arms industry.

